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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/619,083	07/14/2003	Jeffrey W. Adair	03067/02006	4661

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BORGWARNER INC.  
PATENT DEPARTMENT  
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EXAMINER

BONCK, RODNEY H

ART UNIT	PAPER NUMBER
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3681

DATE MAILED: 07/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/619,083	<b>Applicant(s)</b> ADAIR ET AL.	
	<b>Examiner</b> Rodney H. Bonck	<b>Art Unit</b> 3681	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 May 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7, 8, 10-18, 20, 21 and 23-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7, 8, 10-18, 20, 21 and 23-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>06/01/05</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

The following action is in response to the amendment and Request for Continued Examination received May 23, 2005.

#### ***Information Disclosure Statement***

Receipt is acknowledged of the Information Disclosure Statement filed June 1, 2005. The cited document has been considered.

#### ***Claim Objections***

Claims 11 and 34 are objected to because of the following informalities:

The language of claim 11 as amended is awkward and should be reworded. It appears that the strike-through was incorrectly placed in amending claim 11.

Claim 34 is objected to because it includes reference numbers that are not in parentheses. See MPEP 608.01(m).

Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 5, 10, 12, 23, and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the

Art Unit: 3681

subject matter which applicant regards as the invention. Claims 5, 12, and 25 are inaccurate in stating that the desired number of oil localization slots is determined by dividing  $360^\circ$  by a desired number of slots. Dividing  $360^\circ$  by the number of slots would give the number of degrees in each slot, not the number of slots. Claims 10 and 23 appear to contradict the claims from which they depend. Claim 10 states that "the distance D1 is measured from the opposing sides of the oil localization slot at an endpoint of each side." Claim 8, from which claim 10 depends, now appears to state that distance D1 is taken "at the midpoint of the sides". Claim 23 appears to similarly conflict with claim 21.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-5, 7, 8, 10-18, 20, 21, and 23-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Collis et al.(US 2003/0047411 A1) in view of Kremsmair et al.('649). Noting particularly Figs. 17-23 of Collis et al., there is disclosed a friction material 10 having a plurality of connected sections 218, each section being defined by adjacent oil localization slots 220 in the friction material. The slots have opposing sides that define a reservoir that retains fluid. (See especially paragraphs [103] and [106] of Collis et al.) The slots have a retention side and a wiping side, 222,223, which also define opposing and converging sides. The sides extend at an angle to the edge of the friction material and define an offset distance that can be measured at any point along the edge length. If a distance across section 230 of the slot is designated D1 and the distance across the mouth of the section 230 is designated D2, then D2 is clearly shorter than D1. The Collis et al. device is disclosed for use with an end use product. Collis et al. discloses the claimed method of positioning and applying friction material on a friction member and discloses the use of adhesive and heating the product under pressure. See paragraphs [0132] to [0164] of Collis et al. The Collis et al. device shows a single set of oil localization slots radiating from an inner edge of the friction material. The claims now call for a first set of slots radiating from an inner edge of the friction material and a second set of slots radiating from an outer edge of the friction material. The Kremsmair et al. device shows a friction lining 2 where two sets of oil

Art Unit: 3681

slots 5 are provided, one radiating from the inner periphery and one radiating from the outer periphery. It would have been obvious to similarly provide two sets of slots in the Collis et al. device, the motivation being to provide enhanced cooling and/or lubrication of the friction member. In Collis et al. the angular extent of the section connecting adjacent slots is determined by dividing  $360^\circ$  by the desired number of slots. A person having ordinary skill in this art would have recognized that it would logically follow that the number of slots could be determined by dividing  $360^\circ$  by the desired angular extend of the connecting sections. Thus the relationship claimed here is seen as obvious within the meaning of 35 USC 103. Regarding claims 3, 4, 16, and 17, describing the shape of the slots as being "substantially tear drop shape" or "substantially dovetail shape", is not seen to patentably distinguish over Collis et al. Collis et al. disclose a slot having reservoir section 230 and narrow entry section 224 (see Fig. 19) which can be considered to be a general dovetail or tear drop shape, or at least the terms "tear drop" and "dovetail" do not describe a shape in sufficient detail to distinguish over the shape disclosed by Collis et al. As can be seen in Kremsmair et al. (e.g., Fig. 4), each slot terminates a desired distance from the edge of the friction material. This distance for each slot extends beyond the corresponding distance of the adjacent slot. Collis et al. discloses that the slot apex can be one of rounded, circular, oval, or elliptical (see paragraph [0095]).

***Response to Arguments***

The objection to the specification and the rejection of claims 5, 12, and 25 under 35 USC 112, first paragraph, as being drawn to an inadequate description are withdrawn. After reconsideration, it is believed that the specification is essentially accurate in stating that the number of slots is determined by dividing  $360^\circ$  by "the amount of space between adjacent slots", assuming "the amount" is in degrees. The claims, however, are still inaccurate in stating that the number of slots is determined by dividing  $360^\circ$  by the number of slots. Accordingly, the rejection of claims 5, 12, and 25 based on 35 USC 112, second paragraph, is repeated. Additionally, claims 10 and 23 are considered to be indefinite in view of amendments to their parent claims.

The claims require that the slots define an opening with sides that diverge to define a reservoir. In Collis et al. the sides diverge in the sense that they form a widened area that accumulates fluid and thus forms a reservoir. Furthermore, Collis et al. discloses that the sides of the slots can be configured to create a desired fluid flow pattern. Obviously the desired fluid flow pattern would depend on the particular environment in which the friction material is used. Thus it would have been within the purview of the artisan to arrive at an appropriate side configuration, divergent, convergent, or parallel, depending on the desired fluid flow pattern.

For the above reasons, the rejection of the claims is still believed proper.

***Conclusion***

All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

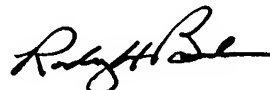
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney H. Bonck whose telephone number is (571) 272-7089. The examiner can normally be reached on Monday-Friday 7:00AM - 3:30PM.



Art Unit: 3681

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on (571) 272-7095. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Rodney H. Bonck  
Primary Examiner  
Art Unit 3681

rhb  
June 28, 2005